



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,659	10/10/2006	Shaun Burchell	1-17186	8569
1678	7590	10/16/2007		
MARSHALL & MELHORN FOUR SEAGATE, EIGHT FLOOR TOLEDO, OH 43604				
			EXAMINER SCHILLER, ALINA	
			ART UNIT 3671	PAPER NUMBER
			MAIL DATE 10/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/556,659	Applicant(s) BURCHELL, SHAUN	
	Examiner Alina Schiller	Art Unit 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 17-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/10/2006</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: the phrases "is has" (page 2, line 16) and "that extending circularly" (page 5, line 31), and the last sentence in page 5 (lines 33-34) are grammatically awkward.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-25 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attar 6,821,051 in view of Fleury et al 6,062,766.

Regarding claim 17, Attar discloses a reflective road marker (as seen in Fig. 1) comprising a generally convex, rigid shell (10; col. 1, lines 23-25; 36; col. 2, lines 20-22; 34-42) and a rigid base (20; col. 3, line 45; col. 4, lines 30-32) fixed in sealed manner to a lower edge of the shell (col. 3, lines 66-67; col. 4, lines 1; 5; 41; 52-55; col. 5, lines 36-38) to form, in combination with the shell, a rigid housing defining a sealed, internal chamber (24), the shell being of molded plastics material (col. 1, lines 23-25; col. 2, lines 20-22) and including at least one molded plastics reflector (12), forming an integral

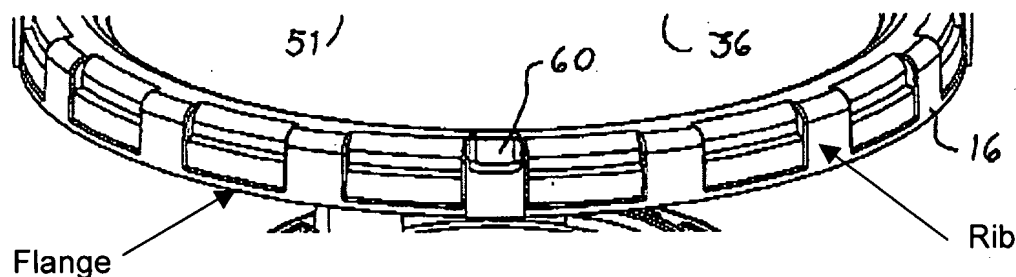
Art Unit: 3671

part of the shell (col. 4, lines 63-67; col. 1, lines 23-25). The examiner notes that the phrase "to reflect light cast onto the marker in use" is for intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is the examiner position that Attar's reflective road marker is capable of meeting the limitation in claim 17, which is an inherent characteristic of road markers. However, Attars fails to disclose that the reflective road marker is embedded into the road surface. Fleury teaches an embedded-type reflective road marker (10, Fig. 1), which is easy to install and able to survive snowplowing operations without damage (col. 1, lines 11-12). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the reflective road marker of Attar to be embedded into the road surface, as taught by Fleury, in order to lower its profile, improve abrasion resistance, and survive snowplowing operations without damage.

Regarding claim 18, Attar discloses a device as previously set forth, but fails to disclose that the shell has an operatively lower edge which includes a plurality of circumferentially spaced, externally projecting ribs to fix the marker against rotation when embedded in a road surface in use. Fleury teaches that is well known to provide the operatively lower edge with a plurality of circumferentially spaced, externally projecting ribs (as seen in the modified picture below taken from Fig. 4), to assist in proper installation of the marker in a recess (Abstract). It would have been obvious to

Art Unit: 3671

one having ordinary skill in the art at the time the invention was made to modify the reflective road marker of Attar to have an operatively lower edge, which includes a plurality of circumferentially spaced, externally projecting ribs, as those of Fleury, in order to assist in proper installation of the marker and engage the pavement around the borehole where the road marker is embedded, as taught by Fleury.



The examiner notes that the phrase "to fix the marker against rotation when embedded in a road surface in use" is for intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is the examiner position that the reflective road marker of Attar as modified by Fleury is capable of meeting the limitation in claim 18.

Regarding claim 19, Attar discloses a device as previously set forth, but fails to disclose that the lower edge of the shell carries an outwardly projecting flange to fix the marker against being pulled out of the road surface when the marker is embedded in

the road surface. Fleury teaches that the lower edge of the shell carries an outwardly projecting flange (as seen in the modified picture above), in order to better anchor the device into the road surface. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the reflective road marker of Attar to have a flange on the lower edge of the shell, as taught by Fleury, in order to better anchor the device into the road surface.

The examiner notes that the phrase "to fix the marker against being pulled out of the road surface when the marker is embedded in the road surface" is for intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is the examiner position that the reflective road marker of Attar as modified by Fleury is capable of meeting the limitation in claim 19.

Regarding claim 20, Attar discloses that the shell has a raised, central rib (18, Fig. 1) and a pair of oppositely inclined, externally planar surfaces (16, Fig. 1) extending downwardly from the central rib in a direction towards the lower edge, such that the shell has, externally, substantially a gable shape in a cross-section transverse to the rib (as seen in Fig. 1).

Regarding claim 21, Attar discloses that the shell includes two reflectors (12, Fig. 1) facing in generally opposite directions (as seen in Fig. 1).

Regarding claim 22, Attar discloses that the surfaces of the reflectors form the externally planar surfaces of the shell (as seen in Fig. 1).

Regarding claim 23, Attar discloses that the at least one reflector is molded in one piece with the remainder of the shell so as to form an integral part of the shell (col. 4, lines 63-67; col. 1, lines 23-25).

Regarding claim 24, Attar discloses that the shell is made of a light transmitting material (col. 5, lines 1-10).

Regarding claim 25, Attar discloses that is well known in the art to use transparent shells (col. 1, line 28), which is considered to meet the limitation of the shell having the same color, or being clear or translucent, throughout in claim 25.

Regarding claim 27, Attar discloses that the shell is molded about the at least one reflector so that the at least one reflector forms an integral part of the shell (col. 4, lines 63-67; col. 1, lines 23-25). The examiner notes that the phrase "at least one reflector is a premolded component and the remainder of the shell is molded about the at least one reflector so that the at least one reflector forms an integral part of the shell" is a process limitation. Claim 27 is considered to be a product - by process claim, and the examiner notes that it has been held that even though product - by process claims are limited by and defined by the process, determination of patentability is based on the product itself. Additionally, the patentability of a product does not depend on its method of production. If the product in the product - by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable

Art Unit: 3671

even though the prior product was made by a different process. *In Re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985) (see MPEP 2113).

Regarding claim 28, Attar discloses that the remainder of the shell aside from the reflectors is opaque (col. 5, lines 10-12).

Regarding claim 29, Attar discloses that at least one reflector is a corner cube prism reflector (col. 12-18; col. 4, lines 27-29).

Regarding claim 30, Attar discloses that the base is of molded plastics construction (col. 4, lines 31-32; col. 5, lines 21-28) and is ultrasonically welded to the shell (col. 4, lines 5; 53-55; col. 5, lines 36-37).

Regarding claim 31, Attar discloses that the base carries an upstanding support wall (26, Fig. 1), which underlies a central, raised rib (18, Fig. 1) of the shell, which is considered to be capable of limiting downward deflection of the rib under vertical loading applied to the shell.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Attar 6,821,051 in view of Fleury et al 6,062,766, as applied to claim 24 above, and further in view of Mecham 7,025,527.

Attar as modified by Fleury discloses the road marker as previously described, but fails to disclose that different portions of the shell are of different color. Mecham teaches that different portions of the shell (18) are of different color, such as red over one portion to indicate danger, such as wrong direction, and another color over the other portion (Abstract, col. 2, lines 7-11; 55-62; col. 4, lines 25-28). It would have been

obvious to one having ordinary skill in the art at the time the invention was made to modify the road marker of Attar as modified by Fleury to have different portions of the shell of different colors, similar to those of Mecham, in order to warn drivers of danger, as taught by Mecham.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Attar 6,821,051 in view of Fleury et al 6,062,766, as applied to claim 17 above, and further in view of Jordan 7,018,131.

Attar as modified by Fleury discloses the road marker as previously described, but fails to disclose that the internal chamber accommodates a light source, a solar panel or a light sensor. Jordan teaches a road marker, wherein the internal chamber accommodates a LED (24, Fig. 1; Abstract), to provide intelligent control for a variety of modes corresponding to diverse driving conditions (Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the road marker of Attar as modified by Fleury to accommodate a light source in the internal chamber, similar to that of Jordan, in order to provide intelligent control for a variety of modes corresponding to diverse driving conditions, as taught by Jordan.

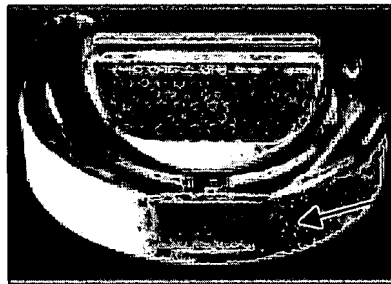
Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attar 6,821,051 in view of applicant's disclosure/Armourstud website (<http://web.archive.org/web/20041111084057/http://www.rema.org.uk/memberpages/armourstud/mp-armourstud1.html>, November 11, 2004)

Regarding claim 17, Attar discloses a device as previously set forth (see discussion for claim 17 above), but fails to disclose that the device is embedded into the road surface. In the Background of the Invention, the applicant discloses a currently popular embedded-type road marker (disclosed by the above-mentioned website), namely that manufactured and supplied by Pilkington Glass and/or Holophane under the name Armourstud. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the reflective road marker of Attar to be embedded into the road surface, as taught in the applicant disclosure, since it is well known to use these embedded-type road markers, in order to secure them better into the road.

Regarding claim 18, Attar discloses a device as previously set forth, but fails to disclose that the shell has an operatively lower edge which includes a plurality of circumferentially spaced, externally projecting ribs to fix the marker against rotation when embedded in a road surface in use. In the Background of the Invention, the applicant discloses a currently popular embedded-type road marker (disclosed by the above-mentioned website), namely Armourstud, which shell has an operatively lower edge which includes a plurality of circumferentially spaced, externally projecting ribs (as seen in the modified picture below taken from the above-mentioned website). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Attar to have an operatively lower edge, which includes a plurality of circumferentially spaced, externally projecting ribs, as taught by the above-

Art Unit: 3671

mentioned website and disclosed by the applicant, in order to better engage the pavement around the borehole where the device is embedded.



Rib

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alina Schiller whose telephone number is (571)270-3088. The examiner can normally be reached on Mon-Fri, 7:30AM-4:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on (571)272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3671

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thomas B. Will
Supervisory Patent Examiner
Art Unit 3671

AS
10/12/2007